

Amendments to the Specification:

Please replace the Abstract with the attached amended Abstract.

Please add the following new paragraph after the paragraph ending on line 1 of page 1:

Summary

Please add the following new paragraph after the paragraph ending on line 6 of page 7:

Brief Description of the Drawings

Please replace the paragraph beginning on page 8, line 18, with the following rewritten paragraph:

Figure 27 shows the frequency variation of the response of the upper sideband of the response after processing according to the third embodiment; ~~and~~

Please replace the paragraph beginning on page 8, line 20, with the following rewritten paragraph:

Figures 28 and 29 show schematic zmod plots of data respectively prior to and after processing in order to illustrate an aspect of the ~~theory~~; theory;

Please add the following new paragraphs after the paragraph ending on line 21 of page 8:

Figure 30 shows schematically embodiments of the invention; and

Figure 31 is a flow chart showing steps in a method of processing oscillatory response data from a resonant system.

Detailed Description

Please add the following new paragraphs after the paragraph ending on line 27 of page 20:

Further Embodiments

Figure 30 shows schematically an embodiment of the invention, in which a gas turbine engine 1 (i.e. a resonant system) is fitted with a sensor 2 which measures oscillatory (i.e. vibration) responses of the engine. Measurement data from the sensor 2 are received by a processor 3. In another embodiment of the invention, the processor receives measurement data from a model system, in which case processor 3 is part of a computer 4.

Figure 31 is a flow chart showing steps in a method of processing oscillatory response data from the resonant system. The method can be performed by the processor 3.